# SOUTHEASTERN LOUISIANA UNIVERSITY
# DEPARTMENT OF MATHEMATICS
# MATH 165 SYLLABUS

**COURSE TITLE:** Precalculus with Trigonometry          **CREDIT:** 3 semester hours

**TEXT:** *Precalculus*, 4th Edition by Dugopolski          **PUBLISHER:** Pearson Education

**PREREQUISITE:** Math 155 or 161 or ACT score in mathematics of 24 or higher.

**COURSE DESCRIPTION:** Topics will include a study of conic sections, general quadratic equations, system of linear and general quadratic equations, exponential, logarithmic, and rational functions, properties and applications of trigonometric functions.

**SPECIFIC COURSE CONTENT – the section numbers in the textbook covering these topics are given after the topic:**

Polynomials, factoring, and rational expressions (P5, P6, P7)
Equations in One Variable (1.1)
Literal Equations (1.2)
Equations and Graphs in Two Variables (1.3)
Linear Equations in Two Variables (1.4)
Quadratic Equations (1.6)
Functions (2.1)
Graphs of Relations and Functions (2.2)
Families of Functions, Transformations, Symmetry (2.3)
Composition of Functions only (2.4)
Inverse Functions (2.5)
Quadratic Functions and Inequalities (3.1)
Theory of Equations (3.3)
Solving Equations (3.4)
Graphs of Polynomial Functions (3.5)
Rational Functions and Inequalities (3.6)
Exponential Functions (4.1)
Logarithmic Functions (4.2)
Rules of Logs (4.3)
More Exponential/Log Equations (4.4)
Right Triangle Trigonometry (5.6)
Angles and their Measures (5.1)
Sine and Cosine Functions (5.2)
Graphs of Sine and Cosine (5.3)
Other Trigonometric Functions and Their Graphs (5.4)
Inverse Trigonometric Functions (5.5)
Trigonometric Identities (6.1 and 6.2)
Sum and Difference Identities (6.3)
Double-angle and Half-angle Identies(6.4)
Conditional Trigonometric Equations (6.6)

**NOTE:** All sections of Math 165 will have a minimum of 3 regular examinations and a final examination, in addition to quizzes and/or homework.

**EMAIL REQUIREMENT:** All correspondence will be made through your Southeastern email account.

**DISABILITY ACCESS STATEMENT:** If you are a qualified student with a disability seeking accommodations under the Americans with Disabilities Act, you are required to self-identify with the Office of Disability Services, Room 203, Student Union. No accommodations will be granted without documentation from the Office of Disability Services.

**ACADEMIC INTEGRITY:** Students are expected to maintain the highest standards of academic integrity. Behavior that violates these standards is not acceptable. Examples include the use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination or other class work.